



GAMMA WASTE ASSAY SYSTEMS

CPO-Smart™

Small Objects Monitor

The CPO-Smart is intended for checking and indicating non-contamination of small objects in controlled areas of Nuclear Power Plants.



FEATURES

- Reliability: proven plastic scintillator technology
- Ergonomics: user-friendly and intuitive graphical interface
- Performance: measurement time automatically shortened thanks to internal algorithm
- Reactivity: unique adaptation capability to background variations
- Intelligent: categorisation of contamination, NORM discrimination and corrected activity count
- Safety: designed for secure installation and transportation, modular shielding can be installed on-site.

DESCRIPTION

The CPO-Smart is using the proven technology of existing Small Objects Monitor of Mirion Technologies with additional and innovating capabilities.

Using a spectrometric approach, the CPO-Smart exceeds the basic contamination measurement by indicating the level and type of contamination.

The CPO-Smart reduced measurement time optimizes the flow of workers. It also provides a unique capability of quick adaptation to background variations.

The CPO-Smart features an intuitive graphical user interface and a compact touch screen for easy display of additional data, based on level of access.



CPO-SMART | SMALL OBJECTS MONITOR

PHYSICAL CHARACTERISTICS

- Internal dimension of measurement chamber :
26.2 x 35.1 x 38.8 cm³ (10.3 x 13.8 x 15.3 in³) (H x W x D)
or 36 litres (1.3 ft³)
- 6 or 4 large plastic detectors 350 x 350 x 50 mm
(13.7 x 13.7 x 2 in)
- 8 spectrometry channels
- Spectrum based stabilization for temperature and drift compensation
 - Energy threshold: 50 keV
- Measurement range: 10 Bq to 1 MBq
- Homogeneity ± 15% for 6 detectors
- Energy uniformity ± 20%
- Background monitoring: automatically adjust count time to measuring goals, suppression of quick variations, quick follow-up of background variation
- Automatic calculation of measurement time according to threshold, background, risk of false positive and detection probability
- Spectrum weighted activity
- Localization indication

ELECTRICAL CHARACTERISTICS

- Power supply : 110-230 V
- Backup > 10 min.
- 2 external USB connectors
- LAN connection via cable gland

ENVIRONMENTAL CHARACTERISTICS

- Operational temperature : + 5°C to + 45°C (41°F to 113°F)
- Storage temperature : - 25°C to + 60°C (-13°F to 140°F)
- Compliant to EC EN 61000-6-2, EN 61000-6-4 and EN 6110-1
- ISO 11929:2010

MECHANICAL CHARACTERISTICS

- **Dimensions**
 - H x W x D: 900 x 510 x 620 mm (35.4 x 20 x 24.2 in) without shielding
 - H x W x D: 900 x 610 x 620 mm (35.4 x 24 x 24.2 in) with shielding

Measurement time for 6 detectors with an Co-60 alarm threshold of 150 Bq							
Shielding Thickness (mm lead equivalent)		5	25	25	50	50	50
BkG (nSv/h)		100	100	300	100	300	1000
Measurement time Co-60 (s)	Max	35	5	9	3	3	6
	Mean	13	3	4	2	2	3

• Weight

- 220 kg (589.4 lbs) with a 5 mm (0.19 in) shielding
- 600 kg (1,607.5 lbs) with a 25 mm (1 in) shielding
- 900 kg (2,411.3 lbs) with a 50 mm (2 in) shielding

FUNCTIONAL CHARACTERISTICS

- 2 LCD color touch screen 10"
- Audible alarm
- Item detection by camera or scale (option)
- 2 doors mode, 1 door only, long object mode
- Quick measurement (minimized duration) and precise measurement (fixed duration)
- Protected access for user settings, diagnosis or configuration
- Assisted diagnosis and calibration measurement
- Reference isotope choice
- Measurements, background, availability, log
- Detailed results saving, picture and spectrum
- Export on USB or network

